

CLAIMS:

1. Mobile station for use in a telecommunication system, said mobile station being arranged to receive a signal from a base station, the signal comprising multiple communications, each communication of said multiple communications having a first characteristic and a second characteristic enabling retrieval of said communication from said signal, the mobile station further being arranged to receive a reference to said first and second characteristics and to obtain said first and said second characteristics through said reference.

5 2. Mobile station according to claim 1, wherein said first characteristic comprises a midamble code and said second characteristic comprises a spreading code.

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3. Mobile station according to claim 1, wherein said reference to said first and second characteristics is a reference to an association tree for defining associations between said first and second characteristics.

15 4. Mobile station according to claim 3, wherein said reference to said association tree comprises a maximum number of mobile stations that can be communicating with said base station.

20 5. Mobile station according to claim 1, wherein said reference to said first and second characteristics comprises a representation of a relation between said first characteristic and said second characteristic.

25 6. Mobile station according to claim 1, wherein said reference to said first characteristic comprises the actual number of mobile stations that are communicating with said base station.

7. Mobile station according to claim 1, wherein said reference to said first characteristic comprises a representation of said first characteristic.

8. Mobile station according to claim 7, wherein said representation of said first characteristic comprises a binary word, each bit of said binary word indicating whether said first characteristic is used by said multiple communications.

5 9. Mobile station according to claim 1, wherein said reference to said first and second characteristics is transmitted in a channel.

10. 10. Mobile station according to claim 9, wherein said channel is a broadcasting channel.

10 11. Mobile station according to claim 1, wherein said communication is retrieved from said multiple communications using a multi user detection algorithm.

12. 15. Mobile station according to claim 1, wherein said communication is retrieved from said multiple communications using a joint detection algorithm.

13. 20. Base station for use in a telecommunication system, said base station being arranged to transmit a signal to a mobile station, the signal comprising multiple communications, each communication of said multiple communications having a first characteristic and a second characteristic enabling retrieval of said communication from said signal, the base station further being arranged to transmit a reference to said first and second characteristics through which said first and said second characteristic can be obtained.

14. 25. Signal for transmission from a base station to a mobile station, said signal comprising a reference to a first characteristic and a second characteristic, said first and second characteristic enabling said mobile station to retrieve a communication from received multiple communications and said reference enabling said mobile station to retrieve said first and second characteristics.